

Analysis of the Implementation of Digital-Based Public Services at the Tempe District Office, Wajo Regency

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ABSTRACT

This study analyzes the implementation of digital-based public services and the factors influencing their implementation at the Tempe District Office, Wajo Regency. A descriptive qualitative approach was used, with data collected through interviews, observation, and documentation involving the district head, service operator, head of government section, and community members. Findings indicate that digital public services have been implemented but are not yet fully optimal. Reliability is constrained by unstable internet connectivity, while responsiveness, assurance, and empathy are generally good. Tangible facilities are available but their utilization is not optimal. The main influencing factors are digital infrastructure, organizational adaptation, human-resource readiness, and regulation. Strengthening connectivity, staff capacity, and alignment between regulation and local conditions is therefore necessary.

INTRODUCTION

The transition from conventional to digital public services is an important part of contemporary public administration. Digitalization is expected to simplify administrative procedures, broaden access, improve efficiency, and strengthen transparency. In the Indonesian governmental context, this transformation is also linked to the development of the Electronic-Based Government System (SPBE). Presidential Regulation No. 95 of 2018 establishes SPBE as an integrated governmental approach intended to support effective, transparent, accountable, and quality public services (Republik Indonesia, 2018).

The existence of digital applications or electronic systems, however, does not automatically guarantee better public services. Implementation depends on the capacity of organizations and personnel, the adequacy of infrastructure, the consistency of procedures, and the ability of citizens to use the available services. Nugroho (2014) emphasizes that public policy implementation is not merely a formal continuation of policy formulation; it is the stage in which policy is translated into concrete action and public outcomes. This makes implementation analysis particularly important when digital transformation is carried out at the local level.

The case of Tempe District is relevant because the district office performs direct administrative functions for the community and has begun integrating digital tools into its service processes. The thesis underlying this article reports that digital public services at the Tempe District Office have been implemented, but their performance remains uneven. The most prominent technical issue is unstable internet connectivity, while employees are generally responsive and supportive toward citizens. The study also identifies organizational adaptation, human-resource readiness, infrastructure, and regulation as important factors.

Service quality in this study is examined through the five dimensions developed by Parasuraman, Zeithaml, and Berry (1988), namely reliability, responsiveness, assurance, empathy, and tangibles. These dimensions are useful for interpreting the experience of digital public service because digitalization changes the means of delivery but does not eliminate the basic expectations of citizens regarding accuracy, speed, safety, attention, and supporting facilities.

The research therefore seeks to analyze how digital-based public services are implemented at the Tempe District Office and to identify the factors that influence implementation. The study is expected to enrich understanding of digital public-service implementation at the sub-district level and provide practical considerations for improving service reliability and accessibility.

LITERATURE REVIEW

Digital-Based Public Service

Public service refers to the provision of services by government institutions to citizens in accordance with established procedures and public obligations. Digital-based public service extends this function through the use of information and communication technologies. The digital form can include online administrative submission, electronic document processing, digital

information channels, and integrated service platforms. Its value is not simply technological; the technology must support easier access, faster processing, accurate information, and accountable interaction between government and citizens.

The Indonesian SPBE framework reinforces this orientation. Presidential Regulation No. 95 of 2018 positions electronic government as an integrated system of governance and management. The regulation is therefore relevant as a policy foundation for understanding why digital service implementation should be considered together with organizational, human, regulatory, and infrastructure dimensions (Republik Indonesia, 2018).

Policy Implementation

Implementation is the process of translating an established policy into activities, procedures, and outcomes. In local government, implementation involves interaction between formal rules, implementing personnel, organizational routines, resources, and the conditions experienced by service users. Nugroho (2014) explains that the success of a policy cannot be separated from the quality of its implementation. Consequently, a policy may be formally available while its practical results remain limited when resources or implementation conditions are inadequate.

For digital public services, implementation requires at least four interrelated conditions: adequate technological infrastructure, organizational capacity to adapt, competent human resources, and regulations that can be applied consistently. These conditions are reflected in the research focus of the underlying thesis and are used here as an analytical frame for interpreting the field findings.

Service Quality Dimensions

Parasuraman et al. (1988) developed SERVQUAL as a framework for assessing perceived service quality. In the present study, the five dimensions are adapted to a public-service setting. Reliability concerns the ability to provide accurate and consistent service. Responsiveness refers to the willingness and speed of personnel in helping users. Assurance concerns competence, courtesy, and the sense of safety and trust created during service. Empathy concerns attention to individual needs. Tangibles refer to physical facilities, equipment, and visible service-support resources.

The adaptation of these dimensions to digital public services is important because digital systems introduce technical dependencies that can influence service quality. For example, a service may be procedurally well designed but become unreliable when network connectivity is unstable. Similarly, a digital facility may exist but provide limited benefit when employees or citizens do not possess sufficient digital skills.

Conceptual Framework

The conceptual framework of this study links digital public-service implementation with service-quality dimensions and implementation factors. The service-quality dimensions consist of reliability, responsiveness, assurance, empathy, and tangibles. The influencing factors consist of digital infrastructure,

organization, human-resource readiness, and regulation. The expected outcome is a more effective and accessible public service for citizens.

Implementation Object	Analytical Dimension	Expected Service Outcome
Digital-based public service	Reliability; responsiveness; assurance; empathy; tangibles	Effective, consistent, safe, responsive, and accessible service
Implementation factors	Infrastructure; organization; human resources; regulation	Conditions that support or constrain service implementation

METHODOLOGY

This research used a descriptive qualitative approach. The choice of qualitative methodology follows the research objective of understanding how digital-based public services are implemented and how actors perceive the conditions affecting implementation. Moleong (2017) explains that qualitative research is appropriate for understanding phenomena in context through descriptive data and the experiences of research participants.

The research was conducted at the Tempe District Office, Wajo Regency, over three months, from January to March 2026. Primary data were obtained from the district head, service operator, head of the government section, and community members. Secondary data consisted of relevant documents, books, journals, and other supporting materials.

Data collection employed observation, in-depth interviews, and documentation. The researcher functioned as the main instrument and was supported by interview, observation, and documentation guides. Data analysis followed the stages reported in the thesis: data reduction, data presentation, and conclusion drawing. Triangulation was used to strengthen data credibility by comparing information from different sources and methods (Sugiyono, 2015).

The analysis focused on two aspects. First, the implementation of digital-based public services was examined through the five service-quality dimensions of Parasuraman et al. (1988). Second, influencing factors were examined through infrastructure, organization, human-resource readiness, and regulation. Because the study is qualitative, the results are presented as thematic findings rather than statistical tests.

RESEARCH RESULT

General Condition of Digital-Based Public Services

The findings show that digital-based public services at the Tempe District Office have already been adopted in administrative activities. Computers, internet connectivity, and digital communication channels are used to support service delivery. The office also provides various administrative services, including population administration, certificates, document legalization, administrative recommendations, and public complaints.

Nevertheless, implementation is not yet fully optimal. The central issue is the instability of internet connectivity, including connectivity to systems outside the direct control of the district office. This issue affects the continuity of digital transactions and can require citizens to wait. At the same time, the office staff generally demonstrate an ability to operate computers and assist citizens in using digital processes.

Table 1. Summary of Findings by Service-Quality Dimension

Dimension	Main Finding	Assessment	Main Constraint
Reliability	Digital service operates, but connectivity can interrupt processing.	Fairly good, not yet optimal	Unstable internet/network
Responsiveness	Staff are responsive, friendly, and willing to assist.	Good	Speed may decline when demand is high
Assurance	Citizens generally feel safe and trust the service.	Good	Digital competence still needs strengthening
Empathy	Staff provide guidance and do not differentiate users.	Good	Some citizens still need digital assistance
Tangibles	Computers, Wi-Fi, and service facilities are available.	Fairly adequate	Network quality and facility utilization

Reliability

Reliability is the ability to provide accurate, timely, and consistent service. In the Tempe District Office, digital service procedures are already used in administrative work, but service continuity is affected by unstable internet connectivity. The operator's experience indicates that interruptions may originate not only from the local internet connection but also from connectivity with central systems. From the citizen's perspective, this problem is visible when a service transaction cannot be completed immediately and the user must wait.

The finding means that the weakness in reliability is not primarily caused by unwillingness or inability of staff to provide service. Rather, it is strongly associated with technical infrastructure. This distinction is important because improving reliability requires more than instructing employees to work faster; it requires improving network stability and establishing practical procedures for service continuity when digital systems are temporarily unavailable.

In terms of Parasuraman et al. (1988), the service can therefore be assessed as fairly good but not fully reliable. The office has demonstrated the capacity to deliver the service, but the consistency expected from a reliable service is disrupted by technical conditions. This result illustrates that digital transformation does not eliminate traditional service-quality requirements; instead, it introduces new dependencies that must be managed.

Responsiveness

Responsiveness was one of the more positive dimensions in the findings. Employees were described as friendly, alert, and willing to help citizens, especially those who were unfamiliar with digital procedures. Staff do not simply process administrative requests; they also explain steps and guide citizens through the service process.

This finding is significant because digitalization can create a gap between the design of a service and the capacity of citizens to use it independently. The staff response at Tempe District partly closes that gap. Assistance provided directly by employees allows citizens with limited digital experience to continue accessing the service rather than being excluded by the digital interface.

However, responsiveness is not uniformly optimal. When the number of users increases, processing speed can decline. Thus, responsiveness is relatively strong in terms of attitude and willingness to help, but still requires improvement in speed and workflow efficiency. The finding suggests that future improvement should address both staff capacity and the technical process supporting high-volume service.

Assurance

Assurance concerns the sense of safety, confidence, courtesy, and competence experienced by service users. The findings indicate that citizens generally trust the service provided by the Tempe District Office. The absence of major complaints reported in the thesis, together with citizens' perceptions of being treated safely and appropriately, indicates a positive level of assurance.

Employees also follow established procedures and seek to provide service in accordance with applicable standard operating procedures. Their ability to operate computers contributes to citizen confidence because users can see that the staff are capable of handling the digital process.

Nevertheless, assurance in digital public services should not be interpreted only as interpersonal courtesy. It also involves confidence in the system and in the competence of personnel. The thesis therefore recommends continued improvement of staff competence and strengthening of the digital service system. Such improvement would help preserve public trust as digital service becomes more important.

Empathy

Empathy was also assessed positively. Observation and interviews show that employees pay attention to citizens who encounter difficulties, particularly those who are not accustomed to digital services. Staff guide users until the administrative process is completed and are described as friendly, patient, and non-discriminatory.

The importance of empathy becomes more pronounced in a digital setting because not all citizens have the same level of digital literacy. A uniform digital procedure may appear efficient from the organizational perspective but can become difficult for users with limited technological experience. Personalized assistance therefore functions as an inclusion mechanism within digital service delivery.

The finding is consistent with the empathy dimension of Parasuraman et al. (1988), which emphasizes attention to users' needs. The positive attitude of staff is a strength that should be maintained while the organization continues to improve digital literacy among citizens. In other words, digitalization should simplify service without removing the human support required by citizens.

Tangibles

Tangibles refer to the facilities and equipment that support service delivery. The Tempe District Office has computers, Wi-Fi access, and a service space that is considered adequate for administrative activities. These facilities indicate that the office has made an initial investment in supporting digital service.

The main problem is not the total absence of facilities but the effectiveness of their utilization. Unstable connectivity reduces the functional value of otherwise available equipment. In addition, limited citizen literacy can reduce the extent to which digital facilities are used independently.

The result suggests that investment in digital public services should be understood as a combination of hardware, connectivity, system availability, and human capability. Providing computers alone is insufficient if the network is unreliable or users need continuous assistance. Tangible readiness must therefore be matched with functional infrastructure and user capability.

Factors Influencing Implementation

Digital Infrastructure

Infrastructure is the most visible constraint in the findings. Computers and internet access are available, but network stability remains a recurring problem. The condition demonstrates that the existence of resources does not necessarily mean that the resources are sufficient in quality or performance.

The infrastructure issue affects more than one service-quality dimension. It directly affects reliability because transactions can be interrupted; it affects responsiveness because waiting time can increase; and it affects tangibles because the functional usefulness of digital equipment depends on connectivity. Infrastructure is therefore a cross-cutting factor in the implementation of digital public services.

Organization and Adaptation

The organization initially experienced an adjustment period because employees had been accustomed to manual work routines. The transition to digital processes therefore required employees to learn new procedures and develop confidence in using technology. Over time, however, employees became more accustomed to computer-based service and digital workflows.

This finding indicates that organizational resistance was not a major long-term barrier. Instead, adaptation became a positive organizational resource. Employees' willingness to learn and assist citizens demonstrates that organizational culture can support digital transformation when change is accompanied by practical experience and continued learning.

From an implementation perspective, the result supports Nugroho's (2014) view that policy implementation is closely related to the capacity of implementing organizations. Rules and technology must be translated into

routine practice by people who understand and accept the change. The Tempe case suggests that organizational adaptation is progressing, although ongoing capacity development remains necessary.

Human-Resource Readiness

The human-resource factor is generally supportive but still requires strengthening. Employees have basic competence in using computers and can support digital administrative processes. Their ability to assist citizens also demonstrates practical readiness.

At the same time, the thesis indicates that employees need deeper and continuous mastery of digital technology. The distinction between basic operational ability and advanced digital competence is important. As service systems become more integrated, staff may need not only to operate devices but also to understand digital workflows, troubleshoot routine problems, communicate with users through digital channels, and adapt to system changes.

Therefore, human-resource readiness should be maintained through periodic training, peer learning, technical assistance, and practical evaluation. The aim is not simply to increase the number of employees who can use computers, but to build a sustainable capacity for digital service delivery.

Regulation

Regulation provides the formal basis for digital public-service implementation. The findings show that the Tempe District Office follows central and local government rules in delivering digital services. The regulatory framework is therefore present and provides direction for implementation.

The remaining problem is the gap between formal standards and local implementation conditions. Network instability and citizens' uneven digital literacy can prevent a formally appropriate procedure from operating smoothly in practice. The issue does not necessarily indicate that the regulation is absent; rather, it shows that implementation needs supporting conditions and local adaptation.

This result is consistent with the broader principle of implementation analysis: a policy framework must be translated into workable routines under real organizational and social conditions. The existence of SPBE regulation provides an important policy direction, but local implementation still depends on infrastructure, staff capability, and citizen readiness (Republik Indonesia, 2018).

DISCUSSION

The overall finding is that digital-based public service at the Tempe District Office is in a functioning but transitional condition. The service is no longer purely manual, and employees have developed practical competence in using digital tools. However, implementation has not yet reached a fully optimal level because the technological foundation and user capability are not equally strong.

The most important analytical point is that the five service-quality dimensions do not develop at the same pace. Assurance and empathy are relatively strong because they are closely associated with employee behavior.

Responsiveness is also positive, although processing speed can decline during busy periods. Reliability and tangibles are more directly affected by infrastructure. This pattern suggests that human interaction can partly compensate for technological limitations, but cannot completely eliminate them.

The findings also demonstrate that digital public service should not be reduced to the availability of applications or computers. A digital service is a socio-technical arrangement involving technology, employees, organizational routines, regulations, and citizens. When one element is weak, the quality of the overall service can decline. For example, unstable connectivity can interrupt an otherwise well-managed administrative process, while limited citizen literacy can prevent available digital facilities from being fully utilized.

From the perspective of implementation, the Tempe case further indicates that organizational adaptation is a strength. Initial adjustment from manual to digital work did not become persistent resistance. Employees gradually accepted the new workflow and continued helping citizens. This is important because successful digital transformation requires change in everyday routines, not only procurement of technology.

The findings also have implications for the meaning of inclusion in digital government. Citizens who are not yet digitally confident still require human assistance. The positive empathy and responsiveness of employees therefore function as a bridge between digital service design and citizens' actual capacity. A fully digital policy should not assume that all citizens can interact with technology in the same way.

Accordingly, improvement should be prioritized in three connected areas. First, network quality needs to be strengthened because it is the most direct source of reliability problems. Second, employee capacity should be developed continuously so that staff can handle increasingly complex digital workflows. Third, citizen-oriented support and digital literacy should be strengthened so that users can access services with less dependence on manual assistance.

The study also reinforces the importance of aligning policy with local conditions. Regulation provides a formal direction, but implementation at the district level must account for infrastructure and citizen characteristics. The appropriate policy response is therefore not to weaken the digitalization agenda, but to ensure that local implementation has sufficient resources, support mechanisms, and adaptive procedures.

CONCLUSIONS AND RECOMMENDATIONS

Digital-based public service at the Tempe District Office, Wajo Regency, has been implemented and is generally functioning, but it is not yet fully optimal. Reliability remains the most evident weakness because unstable internet connectivity can interrupt service. Responsiveness, assurance, and empathy are generally good, with employees showing willingness to assist citizens. Tangible facilities are available, although their utilization is constrained by network quality and uneven digital literacy.

Four main factors influence implementation. Digital infrastructure is supportive in terms of availability but still weak in connectivity stability. The organization has adapted positively after an initial adjustment period. Human resources possess basic technological competence but require continuous improvement. Regulation is available and provides guidance, yet implementation can diverge from formal expectations when local infrastructure and citizen readiness are limited.

For the Tempe District Office, the first priority should be improving network reliability and optimizing the use of existing digital facilities. Second, staff training should be conducted periodically and linked to actual service tasks. Third, citizen assistance and digital-literacy support should be strengthened, particularly for users who are unfamiliar with online procedures. Finally, implementation guidance should remain sufficiently adaptive to local conditions while staying consistent with the applicable regulatory framework.

ADVANCED RESEARCH

This study is limited to a qualitative examination at one district office and therefore does not provide a statistical comparison across districts or service types. Future research can compare several sub-district offices, examine citizen satisfaction quantitatively, or assess the relationship between digital literacy, network quality, and service performance. Further studies may also evaluate specific digital platforms used by local government and examine their usability from the citizen's perspective.

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